

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

COBBLESTONE WIRELESS, LLC,
Plaintiff,

v.

T-MOBILE USA, INC.
Defendant,

NOKIA OF AMERICA CORPORATION,
ERICSSON INC.
Intervenors.

Case No. 2:22-cv-00477-JRG-RSP
(Lead Case)

JURY TRIAL DEMANDED

COBBLESTONE WIRELESS, LLC,
Plaintiff,

v.

AT&T SERVICES INC.; AT&T MOBILITY
LLC; AT&T CORP.
Defendant,

NOKIA OF AMERICA CORPORATION,
ERICSSON INC.
Intervenors.

Case No. 2:22-cv-00474-JRG-RSP
(Member Case)

JURY TRIAL DEMANDED

COBBLESTONE WIRELESS, LLC,
Plaintiff,

v.

CELLCO PARTNERSHIP D/B/A VERIZON
WIRELESS.
Defendant,

NOKIA OF AMERICA CORPORATION,
ERICSSON INC.
Intervenors.

Case No. 2:22-cv-00478-JRG-RSP
(Member Case)

JURY TRIAL DEMANDED

**PLAINTIFF COBBLESTONE WIRELESS, LLC'S OPPOSITION TO DEFENDANTS'
AND INTERVENORS' MOTION FOR PARTIAL SUMMARY JUDGMENT OF
NONINFRINGEMENT OF THE ASSERTED CLAIMS OF U.S. PATENT NO. 10,368,361**

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I. INTRODUCTION

Cobblestone respectfully opposes Defendants’ and Intervenor’s motion for partial summary judgment of non-infringement of the ’361 patent. (Dkt. 152.) The motion argues for non-infringement based upon two limitations of independent claim 10: “shared resource pool” and “schedule . . . based on the updated directional allocation.” Cobblestone’s expert Dr. Williams provided detailed technical analysis of the accused products which explains how each of the accused products satisfy these disputed limitations.

For the “shared resource pool” limitation, the opening brief rests on factual misstatements that are contradicted by the portions of their expert’s report cited in the brief and even by a footnote within the brief itself. It also relies on an interpretation of the term “frequency spectrum resources” within the Court’s construction of “shared resource pool” that is contrary to how the specification of the ’361 patent describes “frequency spectrum resources” and contrary to the opening brief’s own explanation of that specification.

For the “schedule . . . based on the updated directional allocation” limitation, the opening brief fails to even cite or acknowledge what Dr. Williams identifies as satisfying the limitation, but instead argues for non-infringement because the accused products fail to satisfy the claims in another way. Even this strawman argument for non-infringement at most raises triable disputes of fact, making summary judgment inappropriate.

In addition, the opening brief fails to address Dr. Williams’s alternative theories that [REDACTED]

[REDACTED]

To these extent that the Court denies Defendants’ and Interventors’ motion to strike these opinions, summary judgment should be denied for this reason, as well.

II. RESPONSE TO STATEMENT OF ISSUES TO BE DECIDED

Cobblestone agrees with the statement of issues to be decided. As explained below, Cobblestone's expert Dr. Williams has established infringement of the Asserted Claims of the '361 patent, Defendants' and Intervenor's non-infringement arguments rest on misstatements of fact and misinterpretations of the claim language, and there are at the very least disputed issues of fact that preclude summary judgment.

III. RESPONSE TO STATEMENT OF UNDISPUTED MATERIAL FACTS

1. Admitted.
2. Admitted as to the instant cases. Cobblestone accuses other products of infringing the '361 Patent in other pending litigation.
3. Admitted for the purposes of this motion.
4. Admitted as to the instant cases.
5. Disputed. Dr. Williams's infringement analysis includes infringement opinions that involve components of the accused products that are not specific to [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Indeed, Dr. Williams's opinions concerning carrier aggregation are the subject of Defendants' and Intervenor's pending motion to strike and exclude portions of Dr. Williams's expert reports. (Dkt. 153 at 6–11.)

6. Disputed. The accused products [REDACTED]
[REDACTED] It is true, however, that

7. Admitted that in 5G TDD, time is divided into units of subframes. (Dkt. 152 at 4.)

8. Disputed. As explained in a 3GPP technical standards document excerpted by Dr. van der Weide, [REDACTED]

[REDACTED] Footnote 3 of the brief tacitly acknowledges [REDACTED]
[REDACTED] but the brief then makes assertions of “undisputed” facts that ignore their existence.

9. Disputed. See SUMF 8, above.

10. Disputed. Dr. van der Weide’s report [REDACTED]
[REDACTED] Ex. E, ¶¶ 30–31. As for Ericsson, the documents Dr. van der Weide quotes [REDACTED]

[REDACTED] Neither the cited Ericsson documents nor Dr. van der Weide’s report say anything about [REDACTED]

11. Admitted to the extent that the “uplink/downlink configuration” being referred to is the TDD subframe pattern.

12. Admitted to the extent that the “uplink/downlink configuration” being referred to is the TDD subframe pattern.

13. Admitted.

IV. LEGAL STANDARD

Patent infringement “is a question of fact, to be submitted to a jury.” *Markman v. Westview Instruments, Inc.*, 1393, 517 U.S. 370, 384 (1996) (quoting *Winans v. Denmead*, 56 U.S. 330, 338 (1853)).

V. ARGUMENT

While Defendants and Intervenor appeal broadly to issues purportedly present in prior art or to problems the '361 was purportedly designed to address, their non-infringement arguments rest on two specific limitations of claim 10. These arguments fail as to both of those limitations.

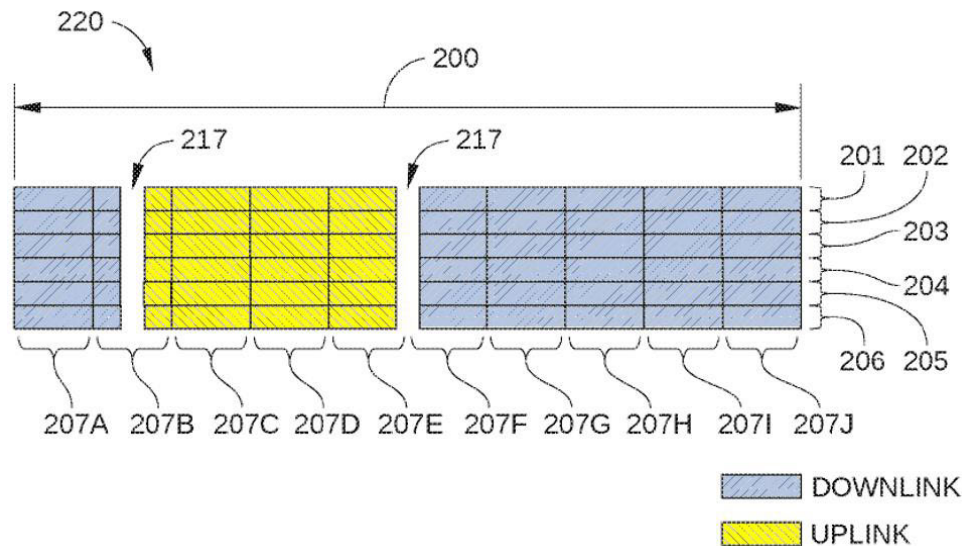
A. The Accused Products Make Use of a “Shared Resource Pool”

The substance of Defendants’ and Intervenor’s non-infringement argument for “shared resource pool” is their contention that each subframe is configured to be used only as an uplink subframe or only as a downlink subframe. As explained in the response to purported undisputed fact 8 above, this is flatly false. “S” (or “Special”) subframes contain both uplink and downlink fields within a single subframe. Ex. E at 14 (“‘S’ denotes a special subframe with the three fields DwPTS, GP and UpPTS. . . . Subframes 0 and 5 and DwPTS are always reserved for downlink transmission. UpPTS and the subframe immediately following the special subframe are always reserved for uplink transmission.”) Dr. van der Weide’s report confirms that the Defendants [REDACTED] or at the very least creates a triable question of fact as to whether they do so. Ex. E, ¶¶ 37–40, 46–49.

Even if it were true that every given subframe was configured solely for uplink use or solely for downlink use, that would not prevent a pool that contained them from satisfying the “shared resource pool,” as that term has been construed. The Court’s construction of “shared resource pool” is as “a pool containing one or more *frequency spectrum resources* that can be scheduled for either uplink or downlink channels.” Dkt. 131 at 24 (emphasis added). While

Defendants and Intervenor proposed a different construction, their construction agreed that the things the pool must contain are “frequency spectrum resources.” Dkt 113 at 11.

Defendants’ and Intervenor’s own brief acknowledges that the subframes are *time resources*, not frequency spectrum resources. In describing purportedly prior art TDD configurations, the brief annotates Figure 2B from the ’361 Patent and describes it as follows:



Ex. A (’361 Patent) at Fig. 2 (annotations added).

Here, the vertical axis shows frequency resources (*i.e.*, subcarriers 201-206), and the horizontal axis shows time (*i.e.*, a radio frame split into a number of subframes). Ex. A (’361 Patent) at 5:63-6:13. Downlink and uplink channels can be allocated to any subcarrier (*i.e.*, any frequency resource) but downlink and uplink channels cannot be allocated during the same subframe (*i.e.*, at the same time). *Id.*

Dkt. 152 at 3–4. This description in the opening brief is accurate. In this figure, the horizontal rows of boxes, labelled along the vertical axis as subcarriers 201–206, are frequency spectrum resources. The vertical columns of boxes, labelled along the horizontal axis as subframes 207A–207J, are time resources.

The ’361 patent is even more explicit, the subcarriers in this Figure 2B are “frequency spectrum resources” and each one of them is used “for both uplink and downlink transmission”:

TDD allocation scheme **220** may be based upon using the same *frequency spectrum resources (subcarriers 201-206)* for both uplink and downlink transmission, where wireless devices and a node do not transmit concurrently. Thus, any one of *subcarriers 201-206 may be used for an uplink channel and for a downlink channel* during radio frame **200**, albeit during different subframes **207**.

Ex. A at 5:63–6:4 (emphasis added).

Accordingly, in the context of the '361 patent, a range of frequencies (such as a subcarrier) can be “used for an uplink channel and for a downlink channel,” even if the specific allocation of uplink and downlink transmissions to subframes is done according to prior art TDD patterns. Such ranges of frequencies are thus “frequency spectrum resources that can be scheduled for either uplink or downlink channels,” as required by the Court’s construction of “shared resource pool.” For that matter, they are also “frequency spectrum resources that can be scheduled for uplink *and* downlink channels,” as would have been required by Defendants’ and Intervenor’s proposed construction. Dkt. 113 at 11.

According to the opening brief, “Cobblestone has accused a scheme that mirrors the prior art TDD scheme of infringement.” Dkt. 152 at 7. As in Figure 2B of the '361 patent, [REDACTED]
[REDACTED]
[REDACTED] To say that the [REDACTED]
[REDACTED]
[REDACTED] is inconsistent with how the '361 patent specification itself describes frequency spectrum resources. It is thus inconsistent with both the construction of “shared resource pool” adopted by the Court and with any other proper construction of that term.

the products would still infringe. Claim 10 requires “a processor . . . configured to . . . assign the first frequency spectrum recourse to a shared resource pool.” Ex. A at 18:62–19:6. [REDACTED]

[REDACTED]

[REDACTED] Ex. E, ¶¶ 30–31, 35–41, 44, 46.

[REDACTED]

[REDACTED] To the

extent that [REDACTED],

that does not change the fact that the subframes in question can, indeed, be used for either uplink

or downlink channels. At most, Defendants’ and Intervenor’s arguments about [REDACTED]

[REDACTED] give rise to a disputed issue of material fact, meaning that summary

judgment should be denied.

Summary judgment of non-infringement based upon the “shared resource pool” term should also be denied because Defendants and Intervenor’s fail to address Dr. Williams’s alternative infringement theory wherein the shared resource pool contains “SCells” utilized in carrier aggregation. Ex. 1, ¶ 872. Dr. Williams explains that “when an SCell is determined to be a sub-optimal resource for a given UE,” it is “assigned to a shared resource pool.” *Id.* He further explains that “Each SCell is a frequency spectrum resource. The frequency resource activation/deactivation feature is applicable to TDD cells where UL and DL transmissions use the same carrier frequency.” *Id.* These opinions and the evidence cited in Dr. Williams’ report at the very least raises an issue of material fact, meaning that summary judgment should be denied.

B. The Accused Products “Schedule the First Frequency Spectrum Resource Based on the Updated Directional Allocation of Frequency Spectrum Resources”

Defendants and Intervenor’s argue that [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] But a change to the subframe pattern is not the only possible

change of “directional allocation” in the accused products.

The opening brief does not even acknowledge what Dr. Williams identifies as the “updated directional allocation,” let alone explain why the features he identifies fail to satisfy the limitation.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] These opinions and the evidence that underlies them at the very least create a triable issue of fact as to the existence of an “updated directional allocation” as a result of bandwidth part adaptation in the accused products.

Even if a change to the subframe pattern were required to satisfy the claimed “updated directional allocation” limitation, as the opening brief suggests, summary judgment should still be denied. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

To the extent that Defendants and Intervenor argue that there is no infringement because

[REDACTED]

[REDACTED] this argument rests on an improper narrowing of the plain language of claim 10. Claim 10 requires that the “updated directional allocation” be determined (and subsequently used for scheduling) “after the second frequency spectrum resource is scheduled,” but that is simply a limitation on *when* the determination (and subsequent scheduling of the first frequency spectrum resource) occurs. The claims impose no requirement on *what causes* the determination. Attempting to require that the updated directional allocation be caused by bandwidth part adaptation is an improper, unsupported, and untimely effort to construe the claims to have a meaning other than their plain and ordinary meaning.

Summary judgment of non-infringement based upon this term should also be denied because Defendants and Intervenor fail to address Dr. Williams’s alternative infringement theory wherein the directional allocation is updated by activating “SCells” utilized in carrier aggregation.

Ex. 1, ¶¶ 903, 912. Dr. Williams explains that “[w]hen the channel conditions justify it, the UE will be provided the SCell again, i.e., the directional allocation of frequency spectrum resources will be updated. SCells can be activated after they were previously de-activated based on the latest RF conditions.” *Id.* These opinions and the evidence cited in Dr. Williams’ report at the very least raises an issue of material fact, meaning that summary judgment should be denied.

VI. CONCLUSION

For the foregoing reasons, Defendants’ and Intervenor’s non-infringement arguments rest on legally improper interpretations of the asserted claims or at the most raise triable issues of fact. Accordingly, their motion for partial summary judgment should be denied.

Dated: July 17, 2024

Respectfully submitted,

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[REDACTED]

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[REDACTED]

[REDACTED]

CERTIFICATE OF SERVICE

I hereby certify that on July 17, 2024, I electronically filed the foregoing document with the Clerk of the Court for the Eastern District of Texas under seal, and served counsel of record with a copy via electronic email.

/s/ Reza Mirzaie
Reza Mirzaie